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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/728,023	11/30/2000	Francis Canova JR.	PALM-3304 .US.P	6106

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EXAMINER

SHAPIRO, LEONID

ART UNIT	PAPER NUMBER
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2673

DATE MAILED: 07/30/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/728,023

Applicant(s)

CANOVA, FRANCIS

Examiner

Leonid Shapiro

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 November 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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Drawings

1. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

The drawings are objected to because in Fig. 18 item numbers 1806 and 1807 should be shown outside of the boxes, as with the rest of the item numbers on the Fig. 18.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

3. The disclosure is objected to because of the following informalities: On Page 5, Line 12 word 'electronic' should be used instead of "electric". On page 33, Line 16 item number should be 1702.

Appropriate correction is required.

4. Claim 6 objected to because of the following informalities: In claim 6c words "at least" should be deleted.

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Appropriate correction is required.

5. Claim 23 objected to because of the following informalities: Claim 23, as depended on claim 22 is not showing all display components of the claim 22. It should be changed this way: "... first and second display components of the first and second flippable cover..."

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 7-18, 21, 24 rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The disclosure fails to state or teach how to implement high information content display with electrically addressable pixels using electronic ink, as shown for example in Albert et al. (Us Patent 6,252,564), cited by the examiner. It is not clear, how simple structure as shown in Fig. 14, 15 and 16 could support statement on page 31: "...take form of monthly calendar..." without presenting more details about implementation, like electrical matrix addressing or tiling. No working examples disclosing necessary parameters have been provided. Without this disclosure, one skilled in the art cannot practice the invention without undue experimentation because of the number of operational parameters in the process of creating electronic ink display as part of the multi-sided display.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

7. Claims 1-6, 19-20, 25 rejected under 35 U.S.C. 102(e) as being anticipated by Miyashita (US Patent No. 6,327,482 B1).

As to claim 1, Miyashita teaches about a display apparatus for providing multi-sided viewing functionality with:

- a) a front cover (hinge portion) mechanically and electrically to portable computer system (mobile radio apparatus), front cover (hinge portion) (See Fig. 3a and 3b, items 7a, 9a, 9b, 9c, in description See Col. 2, Lines 52-67)
- b) a first display component coupled to front cover (hinge portion) (See Fig. 3a, 3b, items 7a, 9a, 9b, 9c, in description See Col. 2, Lines 52-67)
- c) a second display component (main display) coupled to a portable computer system (mobile radio apparatus) (See Fig. 3a, 3b, items 7a, 9a, 9b, 9c, in description See Col. 2, Lines 52-67)
- d) a display control circuit for enabling first display component and second display component, display control circuit (controller) responsive to the

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orientation of front cover (hinge portion) (See Fig. 3a, 3b, 5, items 16, 1, 9, in d description See Col. 5, Lines 7-10 and Lines 24-31).

As to claim 2, Miyashita teaches about a first display component (hinge portion) and second display component (main display) are a front display portion and rear display portion (See Fig. 3a, 3b, items 7a, 9a, 9b, 9c, in description See Col. 2, Lines 52-67)

As to claim 3, Miyashita teaches about hinging mechanism of front cover (hinge portion) is adapted to open and close front cover, such that when front cover is open, front cover is in an open position, and when front cover (hinge portion) is closed front cover in a default position (See Fig. 3a, 3b, items 7a, 9a, 9b, 9c, in description See Col. 2, Lines 52-67)

As to claim 4, Miyashita teaches about a display control circuit, responsive to default position of front cover (hinge portion), activates front display portion of first display component of front cover to enable viewing functionality of front display portion of first display component (See Fig. 3a, 5, 7, item 9c, in description See Col. 4, Lines 1326 and Col. 5, Lines 7-10).

As to claim 5, Miyashita teaches about a display control circuit, responsive to open position of front cover (hinge portion), activates rear display portion of first display component of front cover and front display portion of second display component to enable viewing functionality of rear display portion of first display component front display portion of second display component (See Fig. 3b, 5, 7, items 7, 9a, in description See Col. 4, Lines 1326 and Col. 5, Lines 7-10).

As to claim 6, Miyashita teaches about a display apparatus for providing multi-sided viewing functionality with:

a) a front cover (hinge portion) mechanically and electrically to portable computer

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system (mobile radio apparatus), front cover (hinge portion) with a hinge for providing opening and closing functionality to front cover, wherein closed front cover is in a default position (See Fig. 3a and 3b, items 7a, 9a, 9b, 9c, in description See Col. 2, Lines 52-67)

b) a first display component coupled to front cover, first display component has a front display panel and a rear display panel (hinge portion) (See Fig. 3a, 3b, items 7a, 9a, 9b, 9c, in description See Col. 2, Lines 52-67)

c) a second display component (main display) coupled to a palmtop computer system (mobile radio apparatus), second display component has a front display panel and rear display panel (See Fig. 3a, 3b, items 7a, 9a, 9b, 9c, in description See Col. 2, Lines 52-67)

d) a display control circuit for enabling first display component and second display component, display control circuit (controller) responsive to the orientation of front cover (hinge portion) (See Fig. 3a, 3b, 5, items 16, 1, 9, in description See Col. 5, Lines 7-10 and Lines 24-31).

As to claim 19, Miyashita teaches about a portable electronic device with:

- a housing supporting a first display component (see Fig. 3a and 3b, items 1, 7, 7a, in description See Col. 2, Lines 51-55)
- a flappable cover hinged to housing and having an open state and a closed state, flappable cover with a second display component having
- a front display panel and a back display panel (see Fig. 3a and 3b, items 1, 7, 7a, 9a, 9b, 9c in description See Col. 2, Lines 51-67)

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- front display panel is active to display first images provided flappable cover in closed state (See Fig. 3a, 5, 7, item 9c, in description See Col. 4, Lines 1326 and Col. 5, Lines 7-10).
- upon flappable cover opening to open state, front display panel becomes deactivated, back display panel becomes activated and displays first images and first display component becomes activated for display of second images (See Fig. 3b, 5, 7, items 7, 9a, in description See Col. 4, Lines 1326 and Col. 5, Lines 7-10).

As to claim 20, Miyashita teaches about a first and a second display components are flat panel display screen (See Fig. 4b, items 7a, 9a, in description See Col. 1, Lines 11-13).

As to claim 25, Miyashita teaches about a portable electronic device with a flexible cover mounted display having a first and second side and a display screen integral with mobile radio apparatus, a method for utilizing coupled multiple display capabilities:

- powering on a portable electronic device, such that first side is activated (See Fig. 3a, 7, item 9c, 701, 702 in description See Col. 4, Lines 45-49)
- opening flexible cover so as to deactivate first side and to activate second side of flexible cover and display screen (See Fig. 3a, 7, item 9c, 703-706, in description See Col. 4, Lines 51-59 and Col. 5, Lines 7-10).

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Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 22-23 and 26 rejected under 35 U.S.C. 103(a) as being unpatentable over Miyashita.

As to claim 22, Miyashita teaches about a portable electronic device with:

- a housing supporting a first display component (see Fig. 3a and 3b, item 1, in description See Col. 2, Lines 51-53)
- a first flippable cover hinged to housing and having an open state and a closed state, first flippable cover has a second display component with a front display panel and back display panel (See Fig. 3a and 3b, items 9, 9a, 9b, 9c, in description See Col. 2, lines 51-67).

Miyashita does not teach about a second flappable cover hinged to housing opposite to first flappable cover and having an open state and a closed state, second flappable cover with a third display component having a front display panel and back display panel, front panel of second cover is active to display first images provided first and second cover are closed; upon second cover opening, front display panel of second cover becomes deactivated, back display panel of second cover becomes activated and displays first images and first display panel of the first cover becomes activated for the display of second image; upon first cover opening while second cover is open, front display panel of first cover becomes deactivated, back display panel

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of first cover becomes activated and displays second images and first display component becomes activated for the display third images. It would have been obvious to the one ordinary skills in the art in the time of invention to add one more cover on the left with front and back LCD panels to Miyashita apparatus to increase resolution and viewing capability of the mobile radio apparatus. Such a modification would have been considered an obvious compromise between complexity, cost and viewing capability.

As to claim 23, Miyashita teaches about a first and second display components are flat panel display screens (See Fig. 4b, items 7a, 9a, in description See Col.1, Lines 11-13).

As to claim 26, Miyashita teaches about a mobile radio apparatus configured with a first flexible cover mounted display having a first and second side, opening first flexible cover so as to deactivate first side of first flexible cover and to activate second side of first flexible cover and display screen (See Fig. 3a and 3b, items 9, 9a, 9b, 9c, in description See Col. 2, Lines 51-65 and See Fig. 3a, 7, item 9c, 703-706, in description See Col.4, Lines 51-59 and Col.5, Lines 7-10).

Miyashita does not teach about a second flexible cover mounted display having a first and second side, a second flexible cover mounted display having a first and a second side, and a display screen integral with portable computer system, a method for utilizing coupled multiple display capabilities, powering on, such that first side of second flexible cover is activated, opening second flexible cover so as to deactivate first side of second flexible cover and to activate second side of second flexible cover and first side of first flexible cover. It would have been obvious to the one ordinary skills in the art in the time of invention to add one more cover on the left with front and back LCD panels to Miyashita apparatus to increase resolution and

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viewing capability of the mobile radio apparatus. Such a modification would have been considered an obvious compromise between complexity, cost and viewing capability.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- The Koenig (Pub. No.: US 2002/0021258 A1) reference discloses multi-task interactive wireless telecommunications device.
- The Adler et al. (US Patent 6,340,957 B1) reference discloses dynamically relocatable tileable displays.
- The Lebby et al. (US Patent 6,069,593) reference discloses display carrier and electronic display control for multiple displays in an electronic portable device.
- The Jahagirdar et al. (US Patent 6,304,763 B1) reference discloses a communication device having multiple displays ...
- The Schwab (US Patent 6,229,502 B1) reference discloses an electronic book.
- The Salesky et al. (US Patent 6,376,934 B1) reference discloses multi-display systems.
- The Albert et al. (US Patent 6,252,564 B1) reference discloses tiled displays.
- The Tanigawa et al. (US Patent 5,696,982) reference discloses

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apparatus and method for page-retrieval using electronic-book display.

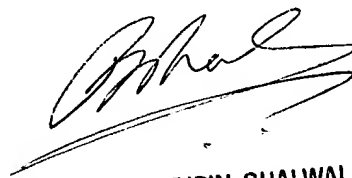
- The Bruce-Sanders (US Patent 4,429,478) reference discloses variable information sign.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonid Shapiro whose telephone number is 703-305-5661. The examiner can normally be reached on 8 a.m. to 5 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on 703-305-4938. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4750.

ls
July 26, 2002



BIPIN SHALWALA
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